

**Y6 – Spring – Block 2 – Step 1 – 1-step function machines Answers**

Question	Answer																												
1	<table border="1"> <tr> <td>Number of triangles</td> <td>1</td> <td>2</td> <td>3</td> <td>4</td> <td>5</td> <td>10</td> <td><b>30</b></td> </tr> <tr> <td>Number of sticks</td> <td><b>3</b></td> <td><b>6</b></td> <td><b>9</b></td> <td><b>12</b></td> <td><b>15</b></td> <td><b>30</b></td> <td>90</td> </tr> </table>	Number of triangles	1	2	3	4	5	10	<b>30</b>	Number of sticks	<b>3</b>	<b>6</b>	<b>9</b>	<b>12</b>	<b>15</b>	<b>30</b>	90												
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2	<p>a)</p> <table border="1"> <tr> <td>Number of bicycles</td> <td>1</td> <td>2</td> <td>5</td> <td><b>9</b></td> <td><b>12</b></td> <td>16</td> </tr> <tr> <td>Number of wheels</td> <td>2</td> <td><b>4</b></td> <td><b>10</b></td> <td>18</td> <td>24</td> <td><b>32</b></td> </tr> </table> <p>b)</p> <table border="1"> <tr> <td>Number of ants</td> <td>1</td> <td>2</td> <td>5</td> <td><b>3</b></td> <td><b>4</b></td> <td>16</td> </tr> <tr> <td>Number of legs</td> <td><b>6</b></td> <td>12</td> <td><b>30</b></td> <td>18</td> <td>24</td> <td><b>96</b></td> </tr> </table> <p>Multiply the number of ants by 6</p>	Number of bicycles	1	2	5	<b>9</b>	<b>12</b>	16	Number of wheels	2	<b>4</b>	<b>10</b>	18	24	<b>32</b>	Number of ants	1	2	5	<b>3</b>	<b>4</b>	16	Number of legs	<b>6</b>	12	<b>30</b>	18	24	<b>96</b>
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3	<p>a) 55 b) 43 c) 100 d) 5</p>																												
4	<p>a) 36 b) 23 c) 35 d) 27</p>																												
5	<table border="1"> <tr> <td>input</td> <td>8</td> <td>→</td> <td rowspan="4" style="text-align: center; vertical-align: middle;">+10</td> <td>→</td> <td>output</td> </tr> <tr> <td></td> <td><b>4</b></td> <td>→</td> <td>→</td> <td>14</td> </tr> <tr> <td></td> <td>5.5</td> <td>→</td> <td>→</td> <td><b>15.5</b></td> </tr> <tr> <td></td> <td><b>-2</b></td> <td>→</td> <td>→</td> <td>8</td> </tr> </table>	input	8	→	+10	→	output		<b>4</b>	→	→	14		5.5	→	→	<b>15.5</b>		<b>-2</b>	→	→	8							
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6	<p>a) <math>\times 5</math> b) <math>+ 7</math></p>																												
7	<p>a) 50 b) <math>-50</math> c) 50.5 d) 950</p>																												
8	<p>Both children are correct. <math>6 + 9 = 15</math> and <math>6 \times 2.5 = 15</math></p>																												

Y6 – Spring – Block 2 – Step 1 – 1-step function machines Answers (continued)

Question	Answer						
9	<div style="text-align: center;">                     input <span style="margin-left: 100px;">output</span>  <math>3 \rightarrow + 9 \rightarrow 12</math> </div>						
	Input	3	4	5	10	20	100
	Output	12	13	14	19	29	109
	<div style="text-align: center;">                     input <span style="margin-left: 100px;">output</span>  <math>3 \rightarrow \times 4 \rightarrow 12</math> </div>						
	Input	3	4	5	10	20	100
	Output	12	16	20	40	80	400